



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,172	02/27/2004	Shin-ichi Uehara	Q80096	4907
23373	7590	01/15/2008	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FINEMAN, LEE A	
		ART UNIT		PAPER NUMBER
		2872		
		MAIL DATE	DELIVERY MODE	
		01/15/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/787,172	UEHARA ET AL.
	Examiner	Art Unit
	Lee Fineman	2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 October 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5, 15, 16, 45 and 48 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5, 15, 16, 45 and 48 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 04 April 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 October 2007 has been entered in which claims 1-2, 4, 15-16 and 45 were amended and claims 44, 46 and 47 were cancelled. Claims 1-5, 15, 16, 45 and 48 are pending.

Claim Objections

2. Claims 1-5, 15, 16 and 45 are objected to because of the following informalities:
- Regarding claim 1, the limitation "an adhesive layer which is provide on a part of an area enclosing an image display area of said display panel to fix the optical unit and the display panel in link" is incorrect and should be corrected to --in line--.
- Regarding claims 2, 3 and 5, the limitation "said fixing unit" lacks antecedent basis. The dependent claims inherit the deficiencies of the claims from which they depend. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 15, 45 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snaper et al., US 4,140,370 (henceforth Snaper) in view of Takahashi et al., US 4,921,330 (henceforth Takahashi).

Regarding claims 1 and 48, Snaper discloses in fig. 14 an image display device (unnumbered) comprising: a display panel (unnumbered) which has a plurality of pixel sections each of which includes at least a pixel displaying an image for the first viewpoint and a pixel displaying an image for the second viewpoint, said pixel sections being provided periodically in one direction (see column 4, lines 9-12); an optical unit (66 and 68) which refracts the light emitted from said pixels and emits the light in directions different from each other (column 4, lines 44-47), and an adhesive layer/means (column 7, lines 31-32) for fixing the optical unit to the display panel which is provided on a part of an area (frame area around image area, unnumbered in fig. 14) enclosing an image display area of said display panel (fig. 14) to fix the optical unit and the display panel in line (fig. 14). Snaper discloses the claimed invention except for explicitly stating wherein the adhesive layer is provided to install the optical unit on the display panel such that a positional relationship between the optical unit and the display panel is maintained while permitting a difference in expansion or contraction between the optical unit and the display panel; or the means for fixing the optical unit to the display panel such that an

unfixed part between the optical unit and the display panel may be deformed to absorb stress.

Takahashi teaches in figs. 1 and 2, providing an adhesive layer/means for fixing (7) an optical unit (3) to a panel (2) such that a positional relationship between the optical unit and the display device is maintained while permitting a difference in expansion or contraction between the optical unit and panel (see column 4, line 60-column 6, line 15) and such that an unfixed part (bottom of screen S) between the optical unit and the panel may be deformed to absorb stress (see column 4, line 60-column 6, line 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the adhesive layer as taught by Takahashi between the optical unit and display panel of Snaper to avoid undulation and swelling between the system elements (Takahashi, column 3, lines 39-42).

Regarding claim 2, Snaper further discloses wherein said optical unit is a lenticular lens (66) having a plurality of semicylindrical lenses (e.g., fig. 10), longitudinal direction of which is perpendicular to said one direction (fig. 10), and said adhesive layer (not shown, on periphery 70) is provided along the side of a frame (68) extending in a longitudinal direction of said semicylindrical lens in said optical unit (fig. 14).

Regarding claims 3 and 15, Snaper further discloses wherein said optical unit is a lenticular lens (66) having a plurality of semicylindrical lenses (e.g., fig. 10), longitudinal direction of which is perpendicular to said one direction (fig. 10), and said adhesive layer (not shown, on periphery 70) is provided along the side extending in a direction orthogonal to the longitudinal direction of said semicylindrical lens in said optical unit (fig. 14).

Regarding claim 45, Snaper further discloses wherein the fixing unit (not shown, on periphery 70) is provided along at least two sides of the optical unit (fig. 14).

5. Claims 4, 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snaper in view of Eichenlaub, US 5,410,345.

Snaper discloses the claimed invention except wherein the optical unit is a fly-eye lens having a plurality of convex lenses in which a lens pitch in said one direction and the lens pitch in a direction perpendicular to said one direction are equal to each other. Eichenlaub teaches in fig. 13 that fly-eye lenses (178) with the lens pitch in said one direction and the lens pitch in a direction perpendicular to said one direction are equal to each other are a well known lens array in the stereoscopic art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a fly-eye lens with the lens pitch in said one direction and the lens pitch in a direction perpendicular to said one direction are equal to each other as taught by Eichenlaub in the system of Snaper as they are commonly available and easy to obtain type of lens array. Therefore, said adhesive layer (not shown, on periphery 70) is provided both along the side orthogonal to the short side of said optical unit and along a short side of said optical unit.

Response to Arguments

6. Applicant's arguments filed 30 October 2007 have been fully considered but they are not persuasive.

Applicant argues that Snaper does not disclose the optical screen 66 directly attached to the display panel. The examiner respectfully disagrees and points out that the claims require an optical unit not an optical screen. As stated in the rejection, the optical unit includes both the

optical screen 66 and frame 68 and is fixed to a part of an area (frame of the display) enclosing an image display area. Therefore, the rejection is appropriate.

Applicant further argued that Takahashi does not disclose a display panel as claimed and therefore does not an appropriate teaching. The examiner respectfully disagrees, has clarified in the rejection how Takahashi teaches providing an adhesive layer/means for fixing (7) an optical unit (3) to a panel (2), and believes one of ordinary skill in the art is able to equate a lens panel of Takahashi with to a display panel to use the means of fixing taught by Takahashi with an optical unit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/787,172
Art Unit: 2872

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lee Fineman
Patent Examiner
AU 2872
9 January 2008